

ICHIHARA et al
Serial No. 10/786,472

Atty Dkt: 925-284
Art Unit: 3681

REMARKS/ARGUMENTS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants basically:

1. Amend claim 1.
2. Add new claims 7 -11.
3. Respectfully traverse all prior art rejections.

B. AMENDMENTS TO THE CLAIMS

Claim 1 is amended to specify that the first inner ring of the first clutch contacts the rotating shaft. Support resides throughout the specification (e.g., paragraph 6), including the drawings (e.g., Figs. 1 & 2).

C. PATENTABILITY OF THE CLAIMS

Claims 1 and 2 stand rejected under 35 USC 102(a) and (e) as being anticipated by U.S. Publication 2003/0098624 to Iwasa et al. Claims 1, 2, 4 and 5 stand rejected under 35 USC 102(e) as being anticipated by U.S. Publication 2003/0098216 to Hayashi. Claims 4-6 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Publication 2003/0098624 to Iwasa et al. Claim 3 stands rejected under 35 USC 103(a) as being unpatentable over U.S. Publication 2003/0098624 to Iwasa et al or U.S. Publication 2003/0098216 to Hayashi in view of U.S. Publication 2002/0183147 to Fujiwara. All prior art rejections are respectfully traversed for at least the following reasons.

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New independent claim 7

New independent claim 7 specifies, e.g., that an exterior surface of the first inner ring has a curved contour for defining an annular recess which accommodates at least a portion of the second one-way clutch between the first one-way clutch and a rotating shaft. Support for new independent claim 7 resides, e.g., in paragraph 18 of the specification. An advantage of the curved exterior surface recited in independent claim 7 is that the curved surface prevents the rings from breaking where they come in contact with one another because the stress is not concentrated in a contacting area.

Importantly, the curved surfaces alleged by the office action to be disclosed in U.S. Publication 2003/0098216 to Hayashi are not part of the clutch structure. Nor does Hayashi make any suggestion that clutch structure could be curved, nor does Hayashi recognize that curved surfaces would create a stronger structure in a ring if used in a clutch structure. Therefore, independent claim 7 and claims dependent thereon are deemed patentable over the applied art of record.

Amended independent claim 1

As amended, claim 1 is distinguished over both Iwasa and Hayashi. Neither applied reference teaches or suggests a first one-way clutch that is in contact with a rotating shaft. The contact between the first inner ring and the claimed rotary shaft increases shaft rigidity and shortens Applicants' clutch in a radial direction as compared to the structure of, e.g., Iwasa.

The 35 USC 103(a) rejections of claims 4-6 as being unpatentable under Iwasa, are respectfully traversed. The claims at issue are directed to clutches having configurations and properties that make them strong and compact (see e.g. specification page 4, line 24; page 5 line 13; page 6, line 6). The overlap of the two clutches is made

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more compact by the orientation of the second clutch because the second outer ring can afford to lose diameter in the raceway region because the raceway region is generally thicker without the overlap (see specification page 6, line 20). Neither U.S. Publication 2003/0098624 to Iwasa et al nor U.S. Publication 2003/0098216 to Hayashi teach or suggest having the raceway region in the annular recess (see new dependent claim 8).

D. MISCELLANEOUS


In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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